<u>**AMENDMENTS TO THE CLAIMS**</u>

1.   (Previously Presented) An apparatus for asynchronous file-based replication of a
hierarchically-indexed data store, the apparatus comprising:

  a hierarchically indexed data store configured to store data in a hierarchical
structure corresponding to a file system;

  an operating system configured to access the hierarchically indexed data store and
initiate write operations to the hierarchically indexed data store;

  a first in-memory block map for tracking changes to the hierarchically indexed
data store, the first in-memory block map comprising a plurality of status indicators
configured to indicate changes to blocks on the hierarchically indexed data store;

  a second in-memory block map for tracking changes to the hierarchically indexed
data store, the second in-memory block map comprising a plurality of status indicators
configured to indicate changes to blocks on the hierarchically indexed data store;

  a tracking module comprising a file system driver configured to monitor write
operations initiated by the operating system and track file regions that have changed since
a first point-in-time replication instance by updating the status indicators in the second in-
memory block map in a written order;

  a replication module configured to asynchronously communicate data contained
within file regions that have changed to a replication target as indicated by the first in-
memory block map;

  the file system driver further configured to access the first in-memory block map
instead of the second in-memory block map in response to a second point-in-time
replication instance;

  the replication module further configured to access the second in-memory block
map instead of the first in-memory block map in response to the second point-in-time
replication instance and asynchronously communicate data contained within file regions

that have changed to the replication target as indicated by the second in-memory block map, wherein the data is communicated in an order that is independent of the written order.

2.   (Previously Presented) The apparatus of claim 1, further comprising a replication target configured to asynchronously receive the data contained within the file regions that have changed from the replication module, write the data within corresponding files regions on the replication target, and initiate a point-in-time image replication operation configured to synchronize the replication target with the hierarchically indexed data store as structured at the second point-in-time replication instance.

3.   (Previously Presented) The apparatus of claim 1, wherein the replication module is further configured to clear the first in-memory block map subsequent to asynchronously communicating the data contained within the file regions indicated by the first in-memory block map.

4.   (Original) The apparatus of claim 1, wherein the replication module is further configured to conduct replication operations as directed by policies related to replication.

5.   (Original) The apparatus of claim 1, further comprising a storage management module configured to set policies related to replication.

6.   (Canceled)

7.   (Original) The apparatus of claim 1, further comprising a point-in-time image replication module configured to provide point-in-time image replication services to the hierarchically-indexed data store.

8.   (Original) The apparatus of claim 1, wherein the tracking module is further configured to save information regarding the file regions that have changed since the first point-in-time image replication instance.

9.   (Canceled)

10. (Previously Presented) The apparatus of claim 1, wherein the file system driver is an installable driver.

11. (Previously Presented) The apparatus of claim 1, wherein the point-in-time image replication comprises a snapshot of the root node.

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16.   (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Previously Presented)   A computer readable storage medium storing computer readable program code for conducting a method for asynchronous file-based replication of a hierarchically-indexed data store, the method comprising:

asynchronously communicating data contained within file regions that have changed to a replication target as indicated by a first in-memory block map;

monitoring write operations to a hierarchically-indexed data store with a file system driver in order to track file regions that have changed since a first point-in-time replication instance wherein changes to the file regions occur in a written order;

updating block status indicators in a second in-memory block map in response to the changes to the file regions;

clearing the first in-memory block and updating block status indicators in the first in-memory block map instead of the second in-memory block map in response to a second point-in-time replication instance;

asynchronously communicating data contained within file regions that have changed to the replication target as indicated by the second in-memory block map instead of the first in-memory block map in response to the second point-in-time replication instance, wherein asynchronously communicating data occurs in an order that is independent of the written order.

22. (Previously Presented) The computer readable storage medium of claim 21, wherein the method further comprises receiving the data contained within the file regions that have changed, writing the data within corresponding files regions on a replication target, and initiating a point-in-time image replication operation configured to synchronize the replication target with the replication source.

23. (Previously Presented) The computer readable storage medium of claim 21, wherein the method further comprises clearing the first in-memory block map subsequent to asynchronously communicating the data contained within the file regions indicated by the first in-memory block map.

24. (Original) The computer readable storage medium of claim 21, wherein the method further comprises communicating is conducted as directed by policies related to replication.

25. (Original) The computer readable storage medium of claim 21, wherein the method further comprises invoking point-in-time image replication services.

26. (Original) The computer readable storage medium of claim 21, wherein the method further comprises saving information regarding the file regions that have changed since the first point-in-time image replication instance.

27. (Original) The computer readable storage medium of claim 21, wherein the method further comprises tracking file regions is conducted in response to write operations.

28. (Original) The computer readable storage medium of claim 21, wherein the method further comprises saving information regarding the storage regions that have changed since the first point-in-time image replication instance.

29. (Original) The computer readable storage medium of claim 21, wherein the point-in-time image comprises a snapshot.

30. (Canceled)